

REMARKS and ARGUMENTS

This reply responds to the non-final Office action dated January 06, 2010.

Claims 1-5 are pending in the application.

Claims 1 and 3-5 are independent claims. Claim 2 depends from claim 1 and, therefore, comprises all of the limitations therein.

Claims 1-5 have been rejected.

Claims 1, 3 and 5 have been amended. Claim 1 has been amended to correct for a minor error in punctuation. Claims 3 and 5 have been amended to correct for a minor grammatical error.

The Examiner has rejected claims 1, 2 and 4 under 35 U.S.C. §103(a) as being unpatentable over Burns et al., U.S. Patent No. 5,995,518, hereinafter “Burns,” in view of Hakenberg et al., U.S. Patent Application Publication No. 2004/0025184, hereinafter “Hakenberg,” and further in view of Krishnamurthy et al., U.S. Patent No. 6,665,872, hereinafter “Krishnamurthy,” and further in view of Loveman et al., U.S. Patent Application Publication No. 2003/0088877, hereinafter “Loveman.”

Regarding independent claim 1, claim 1 is a claim directed to a method associated with minimizing random-access latency to a compressed source video data stream which is characterized with one decoder access latency and one spatial resolution. Independent claim 1 comprises the elements of:

deriving from that engaged data stream, two downstream-deliverable video data streams that are characterized by differing, respective decoder access latencies and spatial resolutions, one of which downstream-deliverable video data streams is characterized, relatively speaking, by a low decoder access latency and a low spatial resolution, and the other of which is characterized, in comparison, by a higher decoder access latency and a higher spatial resolution, wherein, relatively speaking, said low decoder access latency is associated with more closely spaced I-frames in said one downstream-deliverable video data stream in comparison to more widely separated I-frames in said other downstream-deliverable video data stream; and

transmitting said two, downstream-deliverable video data streams using a first communication channel, wherein said transmitting comprises multiplexing said two, downstream-deliverable video data streams.

These elements are not taught in the combination of Burns, Hakenberg, Krishnamurthy and Loveman.

In particular, the combination of Krishnamurthy and Burns is improper in that Burns specifically teaches away from the single, shared, communication channel of Krishnamurthy. Burns teaches a system and method for communication of information using channels of different latencies to reduce perceived communication delay [at least, column 1, lines 63-67 – column 2, lines 1-44]. Burns repeatedly teaches only multiple communication channels and the separation of information, to be transmitted, into first and second components based on at least one predetermined parameter correlated to perceived delay [at least, column 2, lines 12-19]. Krishnamurthy teaches a single, shared, communication channel over which two or more different video streams are concurrently

transmitted [at least, ABSTRACT]. Burns teaches separation of information into two components and transmitting each component on an appropriate channel [at least, ABSTRACT]. Krishnamurthy teaches combining information from two separate sources and transmitting the combined information over a single channel [at least, column 4, lines 20-24]. These two references, Burns and Krishnamurthy, cannot be properly combined as they inherently teach away from each other.

Additionally, the Examiner has failed to make a *prima facie* showing that the combination of Burns, Hakenberg, Krishnamurthy and Loveman teaches, or suggests, deriving, from a source data stream, two video data streams, wherein one of the two video data streams is associated with lower decoder access latency *and* [emphasis added] lower spatial resolution than the other video data stream.

Burns teaches separating information into two components in order to transmit the information over two communication channels, wherein the two communication channels have different communication latencies [at least, column 1, line 63 – column 2, line 30]. The latency disclosed in Burns is the communication latency of a communication channel, not a decoder access latency. Burns does not teach or suggest deriving two video data streams from a source data stream, where each of the two video data streams has a different decoder access latency and video spatial resolution than the other. Loveman teaches a system that substantially simultaneously encodes a low-resolution version and a high-resolution version of multimedia data [at least, paragraph [0029], lines 6-8]. There is no teaching in the combination of references to further impose on Loveman's low-resolution version of multimedia data and Loveman's high-resolution version of multimedia data an additional constraint related to decoder access latency.

Neither of the two additionally cited references teaches modifying the separation, as taught by Burns, or, the two-resolution version of multimedia data, as taught by Loveman, to include derivation of two video data streams from a source data stream, where each of the two video data streams has a different decoder access latency *and* [emphasis added] video spatial resolution.

Furthermore, one of the two components of Burns is used to modify or augment the other [at least, ABSTRACT, lines 12-15]. The two components are not representations of the same information at different spatial resolution and decoder access latency as effectuated by I-frame spacing.

Hakenberg does not teach or suggest derivation of two video data streams from a source data stream. The methods and systems disclosed in Hakenberg teach retransmission of data in response to data loss due to an unreliable communication channel. There is no teaching of deriving multiple data streams, from a source data stream, according to decoder access latency and spatial resolution. Additionally, the applicant respectfully disagrees with the Examiner that Hakenberg teaches “wherein, relatively speaking, said low decoder access latency is associated with more closely spaced I-frames in said one downstream-deliverable video data stream in comparison to more widely separated I-frames in said other downstream-deliverable video.” Hakenberg discloses retransmission of data in response to data loss due to an unreliable communication channel by retransmitting only the I-frames [at least, paragraph [0011]]. Furthermore, if Hakenberg teaches streams with no spacing between I-frames, then there is necessarily no teaching for different streams with different I-frame spacing, only streams with no spacing, and, hence, no teaching for different streams with differing

decoder access latencies. There is no teaching or suggestion of different I-frame spacing in different data streams.

The combination of cited references does not teach two video data streams, wherein one of the two video data streams is associated with lower decoder access latency *and* [emphasis added] lower spatial resolution than the other video data stream. The combination of cited references does not teach minimization of random-access latency. The combination of cited references does not teach two video data streams with the pair of attributes (decoder access latency and spatial resolution) as claimed in the currently claimed embodiments of the applicant's present invention. Thus, claim 1 is not rendered unpatentable by the combination of Burns, Hakenberg, Krishnamurthy and Loveman, and the applicant respectfully requests reconsideration of this claim and that this rejection of claim 1 be withdrawn.

Independent claim 4 is an apparatus claim corresponding to the method claim of independent claim 1, and, for the reasons argued above in relation to claim 1, the applicant respectfully requests that this rejection of claim 4 be withdrawn.

Claim 2, which depends from claim 1 and, therefore, comprises all the limitations therein, is currently allowable based on amended claim 1. The applicant respectfully requests this rejection of claim 2 be withdrawn.

The Examiner has rejected claims 3 and 5 under 35 U.S.C. §103(a) as being unpatentable over Burns et al., U.S. Patent No. 5,995,518, hereinafter "Burns," in view of Hakenberg et al., U.S. Patent Application Publication No. 2004/0025184, hereinafter "Hakenberg," and further in view of Loveman et al., U.S. Patent

Application Publication No. 2003/0088877, hereinafter “Loveman,” and further in view of Lin et al., U.S. Patent Application Publication No. 2002/0095681, hereinafter “Lin.”

Claim 5 is an apparatus claim corresponding to the method claim of claim 3.

As argued above in relation to claims 1 and 4, the combination of Burns, Hakenberg and Loveman does not teach deriving two video data streams with differing decoder access latencies and differing spatial resolutions, wherein decoder access latency is differentiated by I-frame spacing. Nor does the combination of Burns, Hakenberg, Loveman and Lin teach this element. Lin teaches an apparatus and method of transmitting and switching multimedia data over an Ethernet network [at least, ABSTRACT] and does not add to these elements on which the combination of Burns, Hakenberg and Loveman is silent.

Additionally, independent claim 3 comprises the elements of:

“seeking access to the received, two-video-data-stream characterized video data,
in relation to said seeking, monitoring the two, associated video data streams to detect the first occurrence in either stream of an I-frame,
on detecting such an occurrence, selecting the associated data stream to be the source for a viewable output stream, and

(a) if the first detected occurrence involves an I-frame in the mentioned other video data stream, ending the monitoring and selecting process, but

(b) if the first detected occurrence involves an I-frame in the mentioned one video data stream, continuing to monitor the other video data stream to detect therein the first next occurrence of an I-

frame, and on that detection taking place, switching to and selecting that other video data stream to be the source for a viewable output stream, and then ending the monitoring process and the selecting process.”

These elements are not taught in the cited combination of art. Specifically, neither Burns, Hakenberg nor Loveman disclose monitoring data for I-frames. Lin teaches reserving channel path based on channel allocation priority data, and transmitting higher priority data and blocking lower priority data [at least, paragraphs [0049], [0050]]. Lin teaches sending channel allocation priority data in a payload addressed to a master switch [paragraph [0049]]. This address-directed transmission of priority data is not the same as monitoring two sources for an I-frame. In Lin, a signal is either transmitted or delayed based on a channel allocation priority assigned to the signal [at least, Fig. 12]. This does not teach monitoring for the occurrence of an I-frame and triggering a selection action depending on in which stream the I-frame is detected. Further, there is no teaching in Lin of terminating the monitoring when an I-frame in a higher access latency video data stream is received

Additionally, there is no teaching in the cited combination of art of setting a source for a viewable output stream based on the occurrence of I-frames. The Examiner argues that reserving a channel for the data with the highest priority teaches selecting a source for a viewable output stream. The applicant respectfully disagrees. Channel reservation is not analogous to source selection.

Independent claim 5 is an apparatus claim corresponding to the method claim of independent claim 3. Claim 5 comprises corresponding elements as those stated above in reference to claim 3, and the above arguments hold for claim 5 also.

Based on these arguments, the applicant therefore respectfully requests this rejection of claims 3 and 5 be withdrawn.

In light of the arguments above, all claims are considered to be novel, non-obvious and patentable in view of the cited art. The applicant respectfully requests that the Examiner reconsider the rejections of these claims. The Examiner is invited to contact applicant's patent agent directly for any reason.

Based on the foregoing amendments and remarks, the applicant respectfully requests reconsideration and allowance of the present application.

Respectfully submitted,

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